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First World Exports to the Third World—Capital, Technology, Hazardous Waste, and Working Conditions—Who Wins?

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THE INDUSTRIALIZED NATIONS of the world have exported vast quantities of hazardous waste and numerous hazardous industries to Third World countries. The United Nations Environment Programme (UNEP) and the Organization for Economic Co-operation and Development (OECD) estimate that as much as 20% of global industrial waste is transported to other countries. This relatively new social problem represents at least 30 million tons of waste per year.¹ Foreign companies and investors have provided 60% of all industrial investment in developing countries over the past decade.² For many nations such investment is the primary source of new jobs.

These activities have created a critical situation in much of the Third World. What has brought about this threat to worker health and to the world's environment? Three conditions are primarily responsible: the increasing restrictions and fines in industrialized nations related to the manufacture of hazardous products; the high cost and difficulty of handling and disposing of hazardous wastes at home; and the lower cost of labor in Third World countries and the lack of regulations protecting workers and the environment.

Developing countries, for the most part, have few enforceable regulations. They are concerned with overwhelming problems of unemployment, malnutrition, and infectious diseases, often to the exclusion of environmental hazards. Newly industrialized countries are eager for the financial benefits that foreign companies and foreign investors bring them. With those benefits, however, come social and ecologic problems. Unfortunately, most industrialized nations, including the United States, do not have environmental laws with provisions that apply abroad.³

Consequently, Third World cities in areas favored by migrating industry are faced with severe air pollution, inade-

quate sewage treatment and water purification, and rampant dumping of toxic wastes on or in the ground or in waterways. All residents are affected by the deteriorating environment in the Third World, but workers in the rapidly expanding industries have additional serious concerns. They have flooded into these areas seeking jobs promised by the foreign companies. When they arrive, they find that housing is inadequate or nonexistent, and they and their families must live in huts, sleeping on the ground, without safe water, in places far removed from medical care.⁴

Occupational Effects

In most Third World countries, workers have limited education, skills, and training. They are overseen by employers with limited financial resources who are primarily concerned with low-cost production. The workplace may be unsafe, in older buildings, and with machinery lacking safety devices. In many countries, workers have never been given protective clothing, safety glasses, or respiratory or hearing protection. Inspections by health and safety agencies, if they exist, are rare because of long travel distances and limited personnel and funds. Consequently, worker fatality rates are much higher in newly industrialized countries than in the developed nations, and injuries in the workplace occur with rates common to the developed nations during the early years of the industrial revolution.⁵ In this regard, the industrial revolution is taking place all over again, but with much larger populations of workers and in many more countries.

An estimated 30% of the urban population of developing countries make up what is called the informal sector of workers engaged in building or self-employed carpentry, domestic service, selling crafts to tourists, prostitution, and a variety of criminal activities such as smuggling and drug sales.⁶ To this number must be added the large numbers of children subjected to daily labor all over the world. Even the home in developing countries can be the site of industrial activities from crafts production to electronics assembly. Organization of labor is unlikely with this group of workers because they are often very young or very old. Government programs of workers' compensation for injuries and illnesses seldom exist for the informal sector.

Foreign companies entering a Third World country generally accept the lower levels of safety and health standards of the host country, if such even exist. Consequently, work-incurred injuries and illnesses are much more frequent in these countries than they are in industrialized nations.⁷ Despite the difficulties encountered in the workplace, the flow of workers will increase in developing countries as the number of young workers swells from 2 billion to 3.5 billion by the year 2025 ("Pollution in Asia: More People, Bigger Cities, Greater Wealth, Worse Filth," *The Economist*, October 6, 1990, pp 25-28). Competition for jobs will also increase, and as a result worker demands for improved working conditions will probably not be voiced.

Environmental and Health Effects

The incidence of environmental and occupational disease worldwide is higher than it has ever been in recorded history. The United Nations estimates that 6 million cases of occupational disease occur each year, most of them in Third World countries.

In China, for example, 1 million people have silicosis from occupational exposure to dust. Although silicosis is rare

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ABBREVIATIONS USED IN TEXT

ILO = International Labour Office
 OECD = Organization for Economic Co-operation and Development
 UNEP = United Nations Environment Programme
 WHO = World Health Organization

in industrialized countries and is entirely preventable, it is the most common occupational disease in China, which has the world's largest population. In some Third World countries, asbestosis is the major occupational disease among miners, construction workers, and asbestos workers. Yet, the Canadian asbestos industry promotes the use of asbestos in developing countries where the demand for low-cost building materials outweighs health concerns (J. Dahl, "Canada Encourages Mining of Asbestos, Sells to Third World," *Wall Street Journal*, September 12, 1989). The Canadian government has supported its industry by sending free samples of asbestos to any country where future manufacturing of asbestos products is a possibility.

Lead poisoning is of epidemic proportions in many developing countries. In Malaysia, for example, blood levels of lead in many lead-acid battery workers is three times higher than allowed in US workers.⁸ Lead in the air of Ahmadabad, India, is sufficient to cause an increase of 12 to 28 μg per dl in blood levels of lead depending on the time of year. Air levels are much higher in Colombo, Sri Lanka.⁹ Blood levels of lead in an urban area of Pakistan range from 52 to 102 μg per dl.¹⁰ Most developing countries still rely on lead pipes to convey drinking water. Lead is also a problem in unlabeled cosmetics and other consumer goods, and some traditional medicines contain high levels of lead.¹¹

The manufacture and use of pesticides is increasing rapidly in Third World countries. They are often manufactured by foreign-owned companies or local companies financed by foreign interests. Pesticides, such as dichlorodiphenyltrichloroethane (DDT) and 1,2-dibromo-3-chloropropane (DBCP), which are banned in most developed nations, are widely sold and used without restrictions in the Third World. When health hazards cause the removal of a pesticide from the US market, its export to developing countries often increases. For example, the insecticides chlordane and heptachlor were banned for agricultural uses in the United States in the 1970s. Yet between 1987 and 1989, the US manufacturer produced and exported nearly 5 million pounds of these insecticides to some 25 countries.¹² A partial result of widespread misuse of pesticides in the Third World is a reported 3 million poisonings in Southeast Asia alone and 200,000 deaths, many of which local governments often attribute to suicide.⁷ Unfortunately, foreign companies can manufacture any hazardous products as long as they are not forbidden by the host country.

Without question, the further export of hazardous waste and environmentally outmoded industrial plants must be stopped, but such a program will require international co-operation.

International Regulatory Efforts

Fortunately, some international environmental organizations are already at work toward achieving this goal. The United Nations Environment Programme has been working

with a number of countries to discourage the export of hazardous materials to less developed nations and to introduce plant site requirements for hazardous industries wherever possible. It is developing centers to provide information on hazardous materials worldwide.¹³ The World Health Organization and the International Labour Office (ILO) are providing information and assistance to Third World countries concerning occupational health and safety.¹⁴ The difficulty, however, is that most such organizations have severely limited budgets that hamper program development and their ability to fund research in environmental health and in efforts at worker education. The World Medical Association should support WHO/ILO activities, and all medical associations should be increasing their commitments to environmental goals and organizations.

Efforts are also being made to control corporate behavior. Toward this end, the following have attempted to provide a framework for ethical behavior: the OECD Guidelines for Multinational Enterprises, the UN Code of Conduct on Transnational Corporations, and the ILO Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy.^{2,15,16}

An extremely forceful message must be sent to most industries and nations. This need is indicated by the failure to achieve widespread international support for the findings of the Basel Convention on Transboundary Movements of Hazardous Wastes and Their Disposal.¹⁷ The message that industrialized nations and their companies are damaging the world's environment and affecting the health of its people can be conveyed with appropriate credibility and force by physicians.

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